

71
2845

OCT 21 1946

CARNEGIE

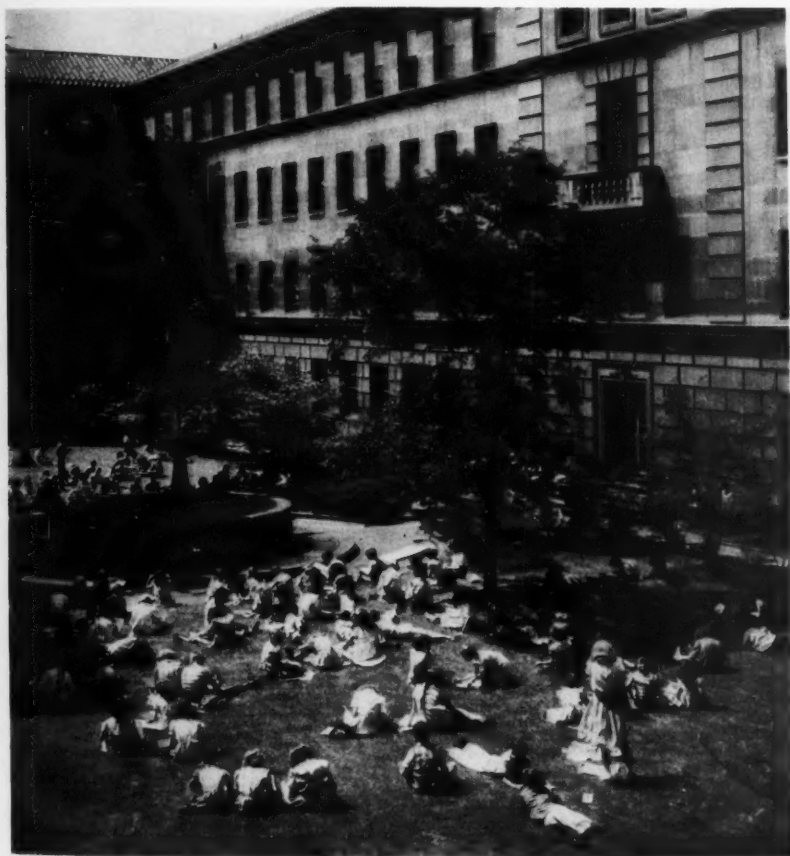
MAGAZINE

CARNEGIE
INSTITUTE

CARNEGIE
INSTITUTE OF TECHNOLOGY

CARNEGIE
LIBRARY

VOLUME XX PITTSBURGH, PA., OCTOBER 1946 NUMBER 4



Summer sketch class visits the court of the Board of Education.

CARNEGIE MAGAZINE

PUBLISHED MONTHLY EXCEPT AUGUST AND SEPTEMBER
IN THE INTEREST OF CARNEGIE INSTITUTE, CARNEGIE
INSTITUTE OF TECHNOLOGY, AND CARNEGIE LIBRARY,
PITTSBURGH, PA. SUBSCRIPTION PRICE, ONE DOLLAR A
YEAR; SINGLE COPY, TEN CENTS.

OFFICE OF THE PRESIDENT
CARNEGIE INSTITUTE

WILLIAM FREW, Editor

JEANNETTE F. SENEFF, Editorial Assistant

VOLUME XX

NUMBER 4

OCTOBER 1946

• I •

SUMMERTIME

Over two hundred boys and girls attended the free "Art in Nature" classes conducted for ten-to-twelve-year-olds by the Fine Arts Department on Tuesday and Thursday morning in July. Sketching with crayon and pencil, they imagined the court of the Board of Education Building as a Mexican patio, glimpsed the Cathedral of Learning from Flagstaff Hill, watched the circus folk camped in Schenley Park, included houses, trees, automobiles, and fellow students among their subjects. Each Wednesday morning, eighty thirteen-to-fifteen-year-olds gathered at the Institute to go out of doors and work in water color.

Almost a hundred children came, on the average, to story hour in the Boys and Girls Room of the Central Library, each Wednesday afternoon during July and August. They came singly, with their mothers, and in groups from the Hebrew Institute, from Frick, Davis, Frazier, and Schenley Park Plaza playgrounds. Part of the time three stories were being told simultaneously in different rooms to different ages.

A small group of Junior Naturalists met each morning during the two months to study economic products of Canada and South America, to examine illustrative Museum material, and take related field trips. A scrapbook was compiled by each child, covering the work.

For the educational program to be carried out this fall and winter at Carnegie Institute, see page 110.

• I •

The CARNEGIE MAGAZINE freely grants permission upon request to reprint without limit articles that appear in its pages, with the usual credit.

• I •

The Carnegie Institute, in the broadest sense, holds its possessions in trust for mankind and for the constant welfare and happiness of the race. Anyone, therefore, who by a gift of beautiful works of art, or objects of scientific value, or a donation to its financial resources, aids in the growth of these collections and the extension of its service is contributing substantially to the glorious mission of the Institute.

CARNEGIE INSTITUTE

4400 FORBES STREET

HOURS: 10:00 A.M. TO 6:00 P.M., weekdays
2:00 TO 6:00 P.M., Sundays

GOLDEN ANNIVERSARY

Founder's Day, 1946
Honorable Kenneth C. Royall
Under Secretary of War
October 10, 8:15 P.M.
Carnegie Music Hall

PAINTING IN THE UNITED STATES, 1946

PREVIEW, OCTOBER 10
following Founder's Day celebration

LECTURES

Carnegie Lecture Hall
OCTOBER 22: Homer Saint-Gaudens
OCTOBER 29: Daniel Catton Rich
Director of Fine Arts
The Art Institute of Chicago

FINE ARTS GALLERIES

Painting in the United States, 1946
October 11—December 8

• I •

Current American Prints
October 10—December 29

MUSEUM

Ancient Japanese Armor
Third Floor

MUSIC HALL

Organ Recitals by Marshall Bidwell
Saturdays at 8:15 P.M.
Sundays at 4:00 P.M.

October 6: Young People's Program

CARNEGIE LIBRARY

HOURS: 9:00 A.M. TO 10:00 P.M., weekdays
2:00 TO 6:00 P.M., Sundays

• I •

Storytelling
Boys and Girls Room
Mondays at 4:15 P.M.
Beginning October 14

• I •

Boyd Memorial Library Concert
Pittsburgh soloists and ensembles
October 7, 8:15 P.M.
Carnegie Music Hall

• I •

Display of Nazi publications
printed in France during the Occupation
Chorus Room, Carnegie Music Hall
OCTOBER 14—16, 3:00 TO 9:00 P.M.
OCTOBER 17—19, 9:00 A.M. TO 10:00 P.M.
OCTOBER 20, 2:00 TO 6:00 P.M.

"FREE TO THE PEOPLE"

Carnegie Institute Broadcasts
Tuesdays at 6:45 P.M., from WCAE
OCTOBER 8: William Frew
Homer Saint-Gaudens

EX-GI COMES TO THE LIBRARY

BY ENID MCP. BOLI

Readers Consultant, Carnegie Library of Pittsburgh

THE Readers Consultant office was established by the Carnegie Library in the peaceful days of 1931, long before Herr Hitler and the Son of Heaven had become troublesome and before anyone had heard of a GI. It is—or was—a quiet spot where

those with reading problems can be given more individual attention than is possible in a busy reading room.

A patron may ask for planned reading on America in fiction; another may want history through biography. Books to give background is a frequent request. Again the problem may be personal: how to talk easily, how to get along with people, or some other angle of personal adjustment. Parents frequently come in to see what books will shed enlightenment on Johnny's behavior problem.

Many requests come from individuals who want to fill gaps in their education. One will say, "I missed psychology in school and would like to read along that line." Usually a short list is made, taking into account the reader's background. At other times the person interested in furthering his education asks if there is a school where he may obtain instruction at night. To meet this demand, the office has always maintained a subject file of all the part-time and evening classes given in Pittsburgh for adults. This file lists both cultural and vocational subjects and is used by many agencies in the city. It is, in fact, the clearinghouse for adult educational activities.



Miss Boli and an ex-GI study a catalogue.

For the past years this has been the pattern of the Readers Consultant office, geared, however, to meet changing reading trends and current educational and social interests. Then suddenly, about a year ago, the office began to look like an ad-

junct of the Veterans Administration. The GIs were coming home. They were accepting at full value the education and training guaranteed under the GI Bill of Rights. Since the office was known as an adult educational center, the various veterans' agencies sent men to it to find out about trade schools and colleges, for the Veterans Administration does not select the school for the man, except in disability cases, but only stamps approval on his choice. As a consequence, veterans now constitute the largest group of persons who come to the office for interviews. To date they number 1,150. The men come singly or in pairs; some bring their wives. In these days of college and housing shortages, the wives like to know where they might have to live.

With this new demand, we soon found the office files of local school resources inadequate. We had to build up records of educational and vocational courses running, so to speak, the length and breadth of the land. This was particularly true for the trades, for Pittsburgh's facilities for training are considerably below those offered in other cities. The men, however, know what they want. Though most men were loathe to leave home, they took the

school which met their needs, regardless of location. In a few cases, particularly of married men, home conditions and finances made this impossible.

The staff learned about schools the hard way. Now we can tell at a glance where there are courses in barbering, neon sign lettering, meat cutting, television, mortuary science, or engineering and law. All the resources of the Library are used: trade magazines, city directories, vocational material, and particularly the permanent collection of college catalogues. Our record of requests looks like a complete vocational file.

The establishment of veterans' high schools by the Pittsburgh Board of Public Education was an outstanding contribution to the educational needs of the returned GI. Many enter refresher courses to bring back long forgotten information; others seek to repair educational deficiencies, particularly in mathematics and science; a surprising number had never completed high school but are now on their way toward a diploma.

Higher educational opportunities of two kinds are sought: degree-conferring colleges of engineering, business administration, and other special fields, and shorter courses in the industrial, trade, and business fields.

In addition to requests for schools, there is a demand for material on job possibilities and types of small business. These demands are met through the vocational file of the Library and current books, such as *Going into Business for Yourself*, *New Careers in Industry*, *Selecting and Operating a Business of Your Own*, *The Veteran and His Future Job*, *500 Postwar Jobs for Men*.

In general, office interviews show that the veteran has a mature and serious attitude toward his education, whether trade or professional. We have yet to find a man who thinks this GI education is due him. He accepts it as an opportunity which in some instances would not have been possible in his former civilian life. Most of the men are eager to "get along." They feel that

they are old and have lost much time. A man will say, "I am old. I am twenty-one and by the time I finish school. . . ." Sometimes their sense of urgency engulfs us too when we realize what the overcrowded colleges and waiting lists mean, for it is a long road to law or medicine.

It has been interesting to observe how the work a man did in service influences his choice in the postwar days. The reaction varies. One medic said, "I am through with all that," while others are eager to get an M.D. or to follow such fields as physical therapy or psychology. A few men have made a right-about-face from their prewar plans. We have known several who have thrown aside one or more years of college to embark on a new field. This has been done with full knowledge of what the change entails. Many navy men have shown a tendency to continue in civilian life the training or trade they had in service. One result of war experience has been an increased interest in government and foreign service as a career.

Although the rush following the first days of demobilization is over, yet requests for educational information will continue for some time to come. The GI and his education is a new and interesting part of Readers Consultant work.

CARNEGIE LIBRARY SCHOOL

FIVE veterans entering under the GI Bill of Rights are among the thirty-two students at Carnegie Library School this year. The five include two Army men; a Wac, a Wave, and Marine (f).

Seventeen students are enrolled in the General; thirteen in the Children's; and two, in the School Library Course. Twenty-one colleges are represented, and ten outside states. Two students are not college graduates, but are experienced librarians who have been admitted as special students at the request of their employers.



MOUNTAIN CARIBOU

BY LAWRENCE C. WOODS, JR.
Honorary Curator, Carnegie Museum

PROBABLY the largest of all the caribou, the Mountain Caribou (*Rangifer tarandus*), has recently come from the Canadian Rockies to Pittsburgh to take its place in the newly reorganized Mammal Hall of the Carnegie Museum. The exhibit of this beautiful animal adds another interesting group to the already well-known collection of North American big game for which the Museum is famous.

Through the generosity of Richard K. Mellon and the skill and artistry of Harold J. Clement, associate preparator, and Ottmar F. von Fuehrer, artist, who has prepared the background, we are now enabled to see the caribou in the setting of their own country high in the mountains of one of the most spacious

and glorious areas of North America.

The caribou has one of the widest ranges of all our big game. Almost extinct in the United States, it is still found in large numbers from Newfoundland to British Columbia in Canada and extends northward to nearly the farthest reaches of the Canadian Arctic islands.

In an exhibit near that of the Mountain Caribou are its cousins—a group of the Barren Ground Caribou—secured about twenty years ago on Southampton Island in Hudson Bay by George M. Sutton on an expedition promoted by John B. Semple, a trustee of the Carnegie Institute. A study of the two groups will show the contrast between the species and how well nature has

prepared each to meet the conditions of the area in which it lives. The Barren Ground Caribou in its lighter coat seems to blend with the great wastes of snow, ice, and rock which compose the barrens, while the Mountain Caribou with its much darker coat and greater sturdiness of bone and muscle has adapted itself to the darker scenes of the pine-fringed mountains and the high places it calls its home.

One night in September 1941, J. Kenneth Doult, curator of mammalogy, and I met our guides at a tiny settlement about two hundred miles northwest of Jasper, Alberta, and with a string of pack horses entered the deep forests the following day. For a week we wound slowly through the thick woodland, fast streams, and sticky bogs that marked the Valley of the Morkill River until, finally emerging into what our guides call the Alplands, there opened before us a breath-taking expanse of snow-covered peaks. The forest had dropped away and the flowers of late summer mingled in a symphony of color with the autumn shades of the grasses and shrubs and the dark pines below us.

It is this scene which Mr. von Fuehrer has depicted with skill and fidelity in the diorama forming the background of the group. The great snowy peak with the flattened top, Mt. Sir Alexander, is named for Sir Alexander McKenzie, who traveled through this country more than a century and a half ago and whose name will forever be linked with those of famous explorers.

As we turned in that night, the moon rising behind our camp cast a silver glow on the ice and snow of the great mountains, and the stars in their brilliance were like shining diamonds against a background of dark velvet. The stillness was broken only by the crackle of our fire, the sound of a far distant waterfall, and now and then the rumble of a rock slide on the peaks. It was a moment of beauty and majesty that once seen lasts forever in memory.

The next morning dawned bright, clear, and cold, and with the two guides

and our horses we climbed a mountain behind our camp, Mr. Doult taking many photographs and all of us looking for game. Carefully tethering the horses below the crest, we cautiously crept to the top, keeping our heads below the skyline until we finally peered over and looked down into a vast cirque where in recent geological times a glacier had hollowed out a bowl from the mountainside. All about were signs of game, a marmot whistled, a golden eagle sailed overhead, and evidence was near at hand of larger things when we came to the spot where a grizzly had recently uncovered a ground squirrel's nest and the caribou had traveled so frequently that a beaten track like a man-made trail marked their path.

The method of hunting in this part of British Columbia is to seek a vantage point such as the spot just described, then, watching for moving game through field glasses, determine whether the animal is what is sought and whether or not it can be reached. Hours slipped past, the day grew colder, and although we saw a few caribou not more than two miles away, such was the contour of the land that the guides assured us it would take nearly a day to reach the spot where the game was grazing and of course by that time the animals would likely be far off.

Late afternoon and rain, a hint of snow, and still nothing near. We commented to Abe Reimer, wrangler and guide, on the abundance of signs and yet the scarcity of game. His slow and only comment, "Well, it would be plumb discouragin' if you had to defend yourself all the time, wouldn't it?" made us realize again that patience must ever be part of the hunter's qualifications.

An hour later as the afternoon shadows were beginning to fall, we saw below us and about half a mile away, the dark body, white cape, and beautifully symmetrical antlers of a caribou bull coming from a small clump of pines on the side of the mountain. He was moving over the small rise and into a

valley beyond. Standing very still, we waited until he disappeared in the trees beyond the spot where we first saw him, then quickly going down the slope and beyond where his trail led, we made a wide circle. It was tricky work and everything depended on Abe's ability, based on experience and partly on guesswork, to determine where the bull had gone.

We searched carefully, moving with extreme caution and always keeping down-wind of the path the animal would most likely take. Suddenly in a small glade and not more than a hundred yards away, he appeared and shortly afterwards was our first trophy of the hunt.

For nearly three weeks we continued through the mountains and passes, much of the time in snow which that year came unseasonably early, and in our search for animals for the group finally found what we were looking for and secured them for the Museum.

It would be well to add here a very deep-felt word of appreciation for the co-operation and help which the Department of Game and Fish, British Columbia, gave the expedition from start to finish, for they knew of the work which the Carnegie Museum had done in Northern Canada and offered us every facility to hunt in the right places and with qualified and experienced guides.

The female caribou, which with the bull forms the group for the new exhibit, is commonly found with antlers but frequently may be without them. The animal which we brought back was not so adorned and it was thought best to keep it in the state in which it was found.

It is the hope of all who had any part in this exhibit of the caribou of the Rockies that those who come to see these animals in their Pittsburgh exhibit may sense in a measure the strength, beauty, and grace of one of our finest forms of big game; and that in the setting in which one finds them—a true replica of the country in which

they live—one may in imagination travel to the Canadian Rockies and there find enjoyment and delight.

IF YOU WERE WONDERING. . .

Modesty doubtless prevents Mr. Woods from telling who actually shot the caribou on this trip since he, himself, was responsible for the four caribou and two goats taken. Twenty-six small specimens were also collected, including red squirrels, shrews, meadow and red-backed mice. Mr. Douth did most of his shooting on twenty-two rolls of color and black-and-white film, seventeen hundred feet of color movie film, and in his spare time wrote down ten thousand words of notes. The trip, which was sponsored by Mr. Woods, lasted from September 3 to 20, 1941.

The Mountain Caribou exhibit will be open to the public soon.

COOK FOREST

CHARLES F. LEWIS, Edmund Arthur, Arthur W. Henn, and O. E. Jennings drove to Cook Forest on a sunny September day, assigned the task by President Arthur E. Braun, of the Cook Forest Association, of suggesting a site for a commemorative plaque. The marker will bear the names of the "moving spirits" in acquisition of the area as a state park—many of them local men.

As early as 1910 Major M. I. McCreight, of DuBois, was urging the establishment of the Cook tract, containing a considerable area of primeval white pine forest, as a public park, and by 1914 Thomas Liggett, of Pittsburgh, became active in arousing public interest.

Due in no small measure to Mr. Liggett's perseverance, the Cook Forest Association was organized and the State persuaded to appropriate \$450,000 which, with the \$200,000 raised by the Association through a long and strenuous campaign, led to the purchase of the tract of over 6,000 acres and the establishment in 1927 of Cook Forest Park. Pittsburghers raised a large part of the \$200,000 needed to make the state appropriation available, part of this being given in pennies by school children.

TWO BURCHFIELDS ARE GIVEN

MRS. JAMES H. BEAL, JR., of Pittsburgh, has presented to the Carnegie Institute for the permanent collection two water colors by Charles E. Burchfield, *Wires Down* and *Sun Glitter*. Mrs. Beal gave the Institute *The Great Elm* by this artist in 1944, so the Department of Fine Arts now possesses three large water colors by one of America's most distinguished living water colorists. It is interesting that, while Burchfield's work cannot be divided into well-defined stages of development, the three water colors belong to different periods of the artist's career—*Wires Down* to the early period, *The Great Elm* to the middle, and *Sun Glitter* to his most recent development. The Carnegie Institute, therefore, with a bow to Mrs. Beal, now has the good fortune to own in the permanent collection a representative group of water colors by Charles E. Burchfield.

Wires Down is water color on paper, the paper being glued on pulpboard. It is 31 inches in width by 18¾ in height. It is signed in the lower right corner "Chas. Burchfield" and dated 1920.

This water color belongs, not to the artist's very early work, 1916 to 1918, when he was a romanticist, but to the first of the period when, as a realist, he turned to the portraiture of small towns, stores, houses, and industries—his coming on the "American Scene." *Wires Down* was immediately recognized as a notable water color, and it was shown in the Art Patrons of America exhibition in Paris in 1924 under the title, *Ice Storm*.

According to the

artist, there is no actual scene as presented in the painting. It is a combination of studies with some material from Salem, Ohio, where the artist lived until 1921, and some from East Liverpool, Ohio, and West Virginia. The general layout and feeling is that of East Liverpool, which furnished the subject matter of many of his small town scenes. The hills in the distance are in West Virginia, across the Ohio River from East Liverpool. Most of Burchfield's subjects are to be found within a stone's throw of his home, be it in Salem or in Gardenville. He knows and studies and feels his environment, and that is why he captures its moods so successfully in painting.

It has been said that snow, wet reflecting streets, leafless trees, and lowering skies are all the vehicles for expression of "the Burchfield mood." This is particularly true of *Wires Down*. It is early morning after a freezing rain has congealed on everything, bringing down the icicle-covered wires. The artist has emphasized in many different and unique ways wetness, half-light, and bleakness. The beholder is introduced to the scene through an arrangement of wires and falling, wet snow, which is at



WIRES DOWN (1920)

once as daring as it is appropriate to the theme.

Sun Glitter is water color on paper. As in *Wires Down* the paper has been pasted on pulboard. It is 25 inches in width by 30 inches in height. It is signed in the lower right corner with the now familiar monogram C. E. B., and dated 1945. It was shown in the Seventeenth Exhibition of Contemporary American Oil Painting at the Cleveland Museum of Art in 1946. This water color belongs to the artist's latest period, in which he has returned to his highly personal early romanticism, but with added strength of deliberate organization and design.

The locale is the drive at the side of the artist's home at Gardenville, with part of the house showing. According to the artist, everything in the painting—house, trees, lawn, and fence—are much as they are in reality, except that the artist has translated them all into the realm of phantasy. Here again, as in so many of his paintings, his preoccupation is with the weather or seasons. He has depicted one of those blistering hot bright days in summer when the flicker of sunlight almost hurts one's eyes, as it seems to pervade and saturate all space, even into the shade. The song of the cicada jars the air and sets some rhythms in motion. The sky, what little can be seen of it through the trees, seems to be white hot.

Charles Ephraim Burchfield was born in Ashtabula Harbor, Ohio, in 1893. His father died when he was four and a half years old, and the family moved to Salem. There, as soon as they were old enough, his older brothers and sisters went to work to keep the family together. When Charles Burchfield graduated from high school, he was employed for a year in the cost department of the W. H. Mullins Company, automobile spare parts manufacturers. With what money he saved during his year's work and with a scholarship awarded for his high-school studies, he entered the Cleveland School of Art in 1912. His plan was to become an illustrator. In



SUN GLITTER (1945)

school he came under the influence of Henry Keller and Francis Wilcox, who gave him much encouragement and direction. During his last year at the Cleveland School of Art, he began to sketch outdoors on his own initiative and made hundreds of water colors of weather effects in connection with landscape.

In the fall of 1916 he went to New York and met Mrs. Mary Mowbray-Clarke of the famous Sunwise Turn Bookshop. She exhibited his pictures in her shop. She also did much to encourage him, to interest people in his work, and to persuade others to show his water colors. After a brief stay in New York, Burchfield returned to Salem and resumed his former position in the cost department, but painted feverishly and continually in his spare time. In 1918 he served for a few months in the army. Strangely enough, it was a very happy experience. On his discharge he returned to Salem and again resumed his job. In 1920, through the efforts of Mrs. Mowbray-Clarke, he had his first real exhibition in New York. Two or three paintings were sold, and the proceeds gave him an opportunity to take some months away from work for painting. He spent the

whole summer in studying cloud and sky effects.

In 1921, at the suggestion of the late Henry Turner Bailey, Director of the Cleveland School of Art, he sent a collection of sketches to M. H. Birge & Sons Company, wallpaper manufacturers of Buffalo, New York. On the basis of the originality of the sketches, he was employed by this enterprising concern and continued in their services until 1929. In an exhibition, "Wallpaper, Historical and Contemporary," at the Albright Art Gallery, M. H. Birge & Sons Company showed a number of samples of wallpaper designed by Charles Burchfield during the period he was with the firm. Since 1929 he has devoted himself exclusively to his painting at his home in Gardenville, near Buffalo.

He has received many honors and awards in numerous exhibitions throughout the country. It has been said that, paradoxical as it may seem, no exhibition of oil painting is complete without a water color by Charles Burchfield. The University of Buffalo in 1944 presented him with its highest honor in the form of the Chancellor's Medal "in recognition of the fact that through his convincing revelation of the beauty latent in familiar surroundings he has attained eminence among the painters of his generation and has dignified Buffalo in the eyes of the world."

He was awarded Second Prize in the 1935 Carnegie International. He has been represented in all important exhibitions of painting at the Carnegie Institute since 1927. In 1939 the Carnegie Institute presented an exhibition of his water colors and oils. There were sixty-three works in the show. In 1944 the Albright Art Gallery honored him with a retrospective exhibition of water colors and oils, 1916-43. There were eighty pictures in the exhibition.

Charles Burchfield is a unique figure in American art. His almost exclusive use of water color as a medium of expression has in itself set him apart

among his fellow artists. It is his personal vision of the American scene, not particularly small-town life, but "the feelings of woods and fields and the memories of seasonal impressions," that gives him an exceptional place in American art. His technical development has been from within; accordingly, he has been enabled to change it as easily as his varying moods. His work is as honest as the artist himself, and he rests his case by expressing his immediate surroundings in his own individual way.—J. O'C., JR.

ORGAN RECITALS

MARSHALL BIDWELL resumes his organ recitals in Carnegie Music Hall with a program on Saturday, October 5, at 8:15 P.M., and on Sunday, October 6, at 4:00 P.M. The recitals will continue each Saturday evening and Sunday afternoon through the winter and spring until July. The Sunday program will be broadcast throughout the galleries of the Department of Fine Arts and the Carnegie Museum, that visitors may mingle their enjoyment of the arts or relax in their contemplation of scientific fact.

A feature of the Saturday program which opens this fifty-second season of the free concerts instituted by Andrew Carnegie will be a composition of considerable local interest. Dr. Bidwell will play "Washerwomen by the Seine," a humoresque from the *French Suite* composed by William Wentzell, the late organist of the East Liberty Presbyterian Church, and arranged by T. Carl Whitmer, former Pittsburgh teacher and composer of national renown. This will be the first performance of the work as an organ composition.

The Sunday program is planned especially for young people, and this type of music will be featured the first Sunday of each month throughout the year.

A number of local high-school choruses will sing a capella at Saturday organ recitals during the season. There will also be community singing.

FOUNDER'S DAY, 1946

THE fiftieth anniversary of Founder's Day at the Carnegie Institute will be celebrated on Thursday, October 10, at 8:15 P.M., in the Carnegie Music Hall. The speaker will be the Honorable Kenneth C. Royall, Under Secretary of War. An attractive musical program will be presented under the direction of Dr. Marshall Bidwell.

At the conclusion of the exercises, the president, William Frew, will announce the prizes awarded by the jury in Painting in the United States, 1946. The

guests will then enjoy a preview of the three hundred paintings in the galleries of the Department of Fine Arts.

The Founder's Day committee consists of Roy A. Hunt, Chairman, David L. Lawrence, Richard K. Mellon, William Watson Smith, and William P. Witherow.

Painting in the United States, 1946 will be open to the public from October 11 through December 8, from 10:00 A.M. to 10:00 P.M., weekdays, and from 2:00 to 6:00 P.M., Sundays.

THE JURY OF AWARD

THREE artists—Vaughn Flannery of Darlington, Maryland, Charles Hopkinson of Boston, and Franklin C. Watkins of Philadelphia—comprise the Jury of Award for the Founder's Day exhibition, Painting in the United States, 1946.

The Jury met at Carnegie Institute on Friday, September 20, to award the following prizes: First, \$1,000; second, \$700; third, \$500; four honorable mentions of \$400, \$300, \$200, and \$100 respectively.

The restrictions on honors will be that prize-winners in the exhibitions of Painting in the United States for the past three years are eligible this year only for awards of higher rank, and the representations of the three jurors may not receive any award. Otherwise all paintings are eligible for prizes regardless of honors received by the artists in previous Carnegie Institute Founder's Day exhibitions.

Vaughn Flannery was born in Kentucky in 1898. His mother was a painter, and it was through her efforts to keep him occupied during a convalescence from diphtheria as a small boy, by giving him her own pastels and paints, that he first became interested in art. While Flannery was still a child, the family moved to Chicago, where he attended

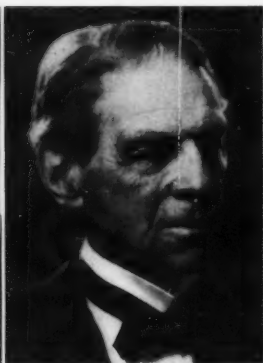
Saturday classes at the Art Institute. He later studied at the University of Illinois and trained for the Camouflage Corps during World War I.

After the war he became a consultant in the graphic arts, working for advertising firms in Philadelphia, Chicago, and New York, and eventually became a member of the plans board and one of the owners of a big advertising agency. He sold his interest in 1940 and only since then has devoted most of his time to painting. He runs a large farm in the blue-grass section of Maryland, where he breeds horses and Maryangus cattle, publishes a country newspaper, serves as graphic consultant to national magazines, and also paints. It was the sportsman side of his life which furnished inspiration for his paintings of landscapes, race tracks, and horses. However, in his first one-man show at the Kraushaar Galleries in 1944 he showed a new type of painting which he termed "experimental." He began to exhibit in the Carnegie International in 1930 and has been represented in practically every Founder's Day exhibition since that time. In 1940 the Carnegie Institute purchased for the permanent collection his *Studio of the Old Master*.

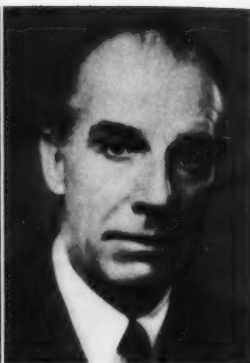
Charles Hopkinson is one of the foremost portrait painters in the United



VAUGHN FLANNERY



CHARLES HOPKINSON



FRANKLIN C. WATKINS

States. He has created a whole gallery of distinguished figures in American life, particularly of notable educators. He was born at Cambridge, Massachusetts, in 1869. The artist graduated from Harvard University in 1899. He studied at the Art Students League of New York, at the Julian Academy in Paris, and under Aman-Jean and Denman Ross. He became an Academician of the National Academy in 1929, is a member of the American Academy of Arts and Letters and of the National Institute of Arts and Letters, and a Fellow in the American Academy of Arts and Sciences. He was awarded a bronze medal at the Pan-American Exposition in 1901; a bronze medal at the St. Louis Exposition in 1904; the Beck gold medal at the Pennsylvania Academy of the Fine Arts in 1915; a silver medal at the Panama-Pacific Exposition at San Francisco in 1915; silver medal at the Sesquicentennial Exposition at Philadelphia and the Logan medal with an award of \$1,000 at The Art Institute of Chicago, both in 1926; and the Thomas R. Proctor prize at the National Academy in 1943. Hopkinson paints in water color as well as oil and tempera media, and his works belong to the collections of many art museums.

Mr. Hopkinson has exhibited in the Founder's Day exhibitions at Carnegie Institute since 1896, and he served on the jury for the 1903, 1907, 1929, and

1938 Internationals and on the jury for Directions in American Painting in 1941.

Franklin Watkins was awarded Third Prize in Painting in the United States, 1945. That, however, was not his first or most important award in a Carnegie Founder's Day exhibition. In 1931 two of his paintings were accepted by the Jury for the International, and one of them, *Suicide in Costume*, received the First Prize and the Lehman Prize and Purchase Fund. Two years earlier he had made his initial appearance in a Carnegie International with two paintings accepted by the jury, and in the intervening years he has been a steady exhibitor in Carnegie Institute shows. He studied painting at the Pennsylvania Academy, from it received two scholarships for travel in Europe, and has subsequently worked and lived in Philadelphia. He was born a New Yorker, in 1894. During World War I he served in the Navy, in camouflage. He teaches at the Pennsylvania Academy. The Rodin Museum in Philadelphia contains mural paintings by him, and he has also worked as a set and costume designer for ballet. Other awards he has won include the Bronze Medal at the 1937 Paris International Exposition, Kohnstamm Prize at The Art Institute of Chicago in 1938, First Clark Prize and Gold Medal at the Corcoran Gallery in 1939 and that same year a Second Prize at the Golden Gate Exposition, and

from the Pennsylvania Academy three prizes—Beck Medal in 1941, Lippincott Prize in 1943, and Temple Gold Medal in 1944. Franklin Watkins' work is widely represented in American museums: in the Whitney Museum and the Museum of Modern Art in New York,

Philadelphia Museum and the Pennsylvania Academy, the Corcoran and Phillips Memorial Galleries in Washington, the William Rockhill Nelson Gallery in Kansas City, at Detroit, Buffalo, and Wichita, at Smith College, and the Courtauld Institute in London.

THE ACADEMY OF SCIENCE AND ART

TRAVEL and exploration, the choice of eighty per cent of the members of the Academy of Science and Art for lecture topics, will dominate the Academy's fifty-seventh lecture season to open the evening of October 17 in Carnegie Music Hall. Bob Hall will give the first illustrated talk on "Japan After Conquest," and on the 24th Dr. Gustav Grahn will speak on "Sweden—Land of Sunlit Nights."

The Academy of Science and Art, seemingly an offshoot of the Carnegie Institute, in reality has some claim to being its parent. When the Library was established in 1895, the Academy brought some of its collections from headquarters in the old Thaw mansion, which stood on Stanwix Street next to a large department store, and put them on display in one of the unoccupied rooms of the new building. They aroused considerable interest which came to the attention of Andrew Carnegie, and it seems highly probable that this helped influence his decision to establish a science museum and art department.

After the Carnegie Institute was built, the Academy, whose president was then John A. Brashear, gave all its collections to the Museum to provide proper care, display, and further research on them. The Academy was to provide lectures on scientific subjects and in turn be assured a home in the Museum. The Academy met in the Carnegie Lecture Hall without rental charge until ten years ago, when increased attendance required the larger Carnegie Music Hall. At the present time the Academy membership numbers nearly 1,300—

each entitled to two tickets—with a waiting list of about 400.

Preliminary discussions indicate that a lecture series of a similar nature, more or less under sponsorship of the Academy, will be established in other parts of the city.

Dr. O. E. Jennings has been president of the Academy since 1924, and the other officers are Clarence B. Horton and John A. Lathwood, vice presidents; John A. Brown, treasurer; and B. H. Chatto, secretary. F. Ross Altwater is president of the Photographic Section, and Roelof Weertman, of the Astronomical.

STATE LIBRARY MEETING

MR. MORTIMER J. ADLER, author of *How To Read A Book*, will speak at the Schenley Hotel on October 19 at the banquet which closes the three-day convention of the Pennsylvania Library Association. Four hundred librarians are expected. Frances H. Kelly is program chairman.

"Promoting Library Progress in Pennsylvania" will be discussed Friday evening in Carnegie Lecture Hall under leadership of Ralph Munn. Alfred D. Keater, State Library director, will speak on "Present Status"; William Bacon, of Erie, on "Conditions Affecting Development"; and Julia Wright Merrill, of the American Library Association, on "Next Steps." Joseph L. Wheeler, of Baltimore, will discuss "A Survey of Pennsylvania Libraries."

Katharine Shorey, of York, is the incoming president.

NO TUNE OF THE HICKORY STICK

SPECIALIZED training for talented youth and a guide to appreciation for children and adults are the twin goals of the educational program of the Fine Arts Department and Museum at Carnegie Institute again this winter.

The free sketch and paint classes to which children of artistic ability from the public, parochial, and private schools of greater Pittsburgh come each Saturday, on invitation, opened September 14. Six hundred ten-to-twelve-year-olds, the Tam O'Shanters, arrived at 10:00 A.M., for lesson and crayon drawing under Amelia Wheeler in the Lecture Hall. The Palettes, thirteen-to-sixteen-year-old veterans of "Tam" training, over two hundred strong, came earlier at 9:15 o'clock, for instruction in painting by Katharine McFarland in Lecture Hall, followed by easel work on the Balcony.

The dignity with which the marble halls of the Fine Arts Department welcome this throng of budding artists well demonstrates the basic art tenet of "unity in diversity." But then, the same halls have been withstanding a similar impact each winter Saturday for the past twenty-four years.

The afternoon Palettes, new to the Institute art classes, came in the afternoon, numbering one hundred and fifty, for crayon and paint training under Dorothea Alston.

All the educational work of the Fine Arts Department is headed by Margaret M. Lee.

This year, again, fifty-three selected boys and girls from the two Palette groups will go to Carnegie Tech Saturday mornings beginning October 12, to join other children in advanced work in painting, design, and sculpture. These courses for children of high-school age are given by members of the Tech Fine Arts faculty.

Nature Club, which opens in the Museum Saturday morning, November 2, will be attended by approximately sixty thirteen-to-fifteen-year-olds selected by their teachers in the Pittsburgh public, private, and parochial schools, for special ability and interest. The Museum curators teach this group in the different branches of science, meeting with them in the Children's Museum. The Junior Naturalists is open to all interested children from ages of ten to sixteen, each Saturday morning, under

direction of Frank Napier, who is back at Carnegie on leave of absence from the Staten Island Museum. The Museum educational program is directed by Jane A. White.

In co-operation with the Board of Public Education represented by H. G. Masters, the Carnegie Institute again offers an excursion into art and science to every sixth-grader in the city public schools, and to every eighth-grade



"This, children, is uranium," Mr. Scaman tells the Junior Naturalists.



"And here is the ivory castle where the fairy princess lived," perhaps the storyteller is saying to the eager youngsters who gathered at the Library one hot summer day.

class whose teacher requests it. This program opened Monday, September 16, with the arrival of the Allen and Rochelle Schools. Approximately nine thousand boys and girls will be coming this semester.

A choice of topics for the forty-minute talks is offered: for the sixth grade—in art, "Around the World on a Palette," "Children through the Picture Frame," and "The Artist Covers the Water Front"; in science, "Plants of the United States," "Interesting Insects," "Birds and Their Value to Man," "Our Fur-bearing Animal Friends"; for the eighth grade—in art, "Picture-Building," "Color and How Painters Use It," or "Realistic and Nonrealistic Painting" as demonstrated in Painting in the United States, 1946, or other special exhibitions; in science, "Behind the Scenes at the Museum," "Travel by Land and Sea," "Egyptian Civilization," "Water-Life," or "Snakes, Alligators, and Frogs."

Miss Wheeler and Mrs. Edla Heinz will conduct the art tours, and Mrs.

Harry Roslund, Lucille Bailey, and Frank Napier, the science.

Any school class or other group, of course, is welcomed to the Institute upon appointment. The Ross Township Elementary School comes in each year for its work in science and a large group from different outlying counties arrives each Saturday by bus as part of an educational tour of Pittsburgh arranged by a textbook publishing company.

Every high-school art class in the city will visit the Department of Fine Arts once this year—a new feature arranged with Mary Adeline McKibben, senior supervisor of art for Pittsburgh Board of Public Education. On each of eight days in November and December, 250 children will come to the Institute for an art tour under direction of Miss McKibben and Miss Wheeler.

The free moving pictures presented by the Museum in Lecture Hall each Saturday, at 2:15 P.M., will begin November 2. The pictures cover subjects in natural history and travel fields.

Already a number of engagements have been made by women's organiza-

tions to visit Painting in the United States, 1946. Joseph Fitzpatrick, Reid Hastie, and others will lecture without charge. Groups already scheduled include Forest Hills Woman's Club, New Kensington Woman's Club, Evening Guild of Ben Avon Presbyterian Church, Hampton Farm and Garden Club, Sheraden Woman's Club, Gamma Sigma Chapter of Pi Lambda, School of Design, Mt. Lebanon Newcomers Club, Fox Chapel Garden Club, Allegheny County Council of Parent-Teachers, Greensburg Friday Club, Grove City College Club, Lieutenant Colonel George Groghan Chapter of Daughters of 1812, Colonel Henry Bouquet Chapter of Daughters of American Revolution, the Cileots or women employees of Carnegie-Illinois Steel Corporation, Board of the Pittsburgh Chapter of Hadassah, Edgewood Civic Club, Court Bellevue of Catholic Daughters of America, Hilltop Mothers Club, American Association of University Women of Pittsburgh, Duquesne Mothers Club, Homewood Woman's Club, Rosslyn Farms and Crafton Woman's Clubs.

ANCIENT JAPANESE ARMOR

A COLORFUL relic of Japanese ancestral ceremony has been lent to Carnegie Museum by W. Ward Powell. This model, which is three feet high, reproduces armor used by Nagatoshi Nawa, a famous general under Emperor Godaigo six hundred years ago, when the Japanese samurai had first adopted iron in protection against the firearms of the Mongols. The iron mesh threaded in pale green—often in red, scarlet, or pink—and decorated with gold, well represents the Japanese industrial fine arts of the period.

Such a model, or even the actual armor, helmets, swords, streamers, and warrior dolls, was a treasured family possession, traditionally displayed every May 5 for Boys Festival in homes where there were sons under seven years of age, to recall the distinguished military deeds of their ancestors. Some think the



Japanese will cling to such relics even while conforming to the modern educational program introduced by the Americans.

The model was given to Mr. Powell, vice president of Mesta Machine Company, in 1939, on his second business trip to Tokyo with Mrs. Powell, while they were visiting their son and daughter who were there in school. It is valued at \$2,500.

The gift to the Powells perhaps symbolizes some of the worst and best traits of the Japanese nation from the American point of view—their militarism and inordinate ancestor worship, as well as their artistry and supreme hospitality.

SHORT SHORT STORY

FROM Czechoslovakia, an unknown woman writes: "Please send me regularly your splendid CARNEGIE MAGAZINE, list and catalogues of publications, events, other propaganda materials—leaflets, booklets, seals. If possible, send me please old numbers of magazine from wartime 1939 to 1946. Many thanks! Yours faithfully."

ON, CARNEGIE!

Forty-fifth Commencement Address at Carnegie Institute of Technology

BY WEBSTER N. JONES

Director, College of Engineering and Science



COMMENCEMENTS have been frequent lately! Today I am privileged once again to address a graduating class of great promise in science and engineering. I congratulate each of you and also those in the audi-

ence and elsewhere who have helped you to achieve your goal.

This is an unusual class. For one thing, most of you are older—older in years, older in experience, older in wisdom. Many of you are married; some of you are fathers! Had there been no Pearl Harbor, you would long since have been winning your laurels in industry, in research, or in teaching. Instead, on September 22, 1946, you are now ready to begin your professional careers.

This is also an unusual class in that some of you are far younger than the average college graduate. Because of our expedited program, you have finished college in less than three years and will have the advantage of an early start in your fields.

Three thousand, seven hundred and twenty-one Carnegie men and women saw active service in World War II. As our students left the campus—slowly at first, and then faster and faster—I wished them Godspeed, promised that there would be a place for them when the conflict was over, and told them our slogan, "Carnegie Tech is not going to be washed down the Ohio River!"

As you know, the faculty earned a war record which, we are proud to say,

is comparable to that of its students. While so doing, we made plans to take care of the men in service who would wish to return after hostilities had ceased. We have carried out those plans. Thus far all students who withdrew to join the armed forces have been given an opportunity to resume their studies.

Many men are returning to complete one semester, or even half a semester. In fact, the first man who came back had one semester to complete. His attitude toward his work and toward Carnegie warmed my heart. "I'm glad to see you back, John," I said to him. "Are you ready to take up your studies again?" "Director," he said, "not only that. This will be the best semester I've ever had, and I'm going to follow it up with graduate study!"

Although our classes are filled to overflowing, every consideration is being given the men who were unable to complete the requirements for the degree. We will not be satisfied until every Carnegie man who left to enter the service has returned to finish his educational preparation. At the same time, Carnegie's standards have not been lowered, and they will not be lowered. We want our graduates to attain professional standing and not to be denied it because of unfulfilled requirements. More than that, we want them to achieve professional recognition. Only thus can they make their utmost contribution; only thus can Carnegie make its utmost contribution. Our country's greatest national resource, in peace or in war, is educated men; and Carnegie-educated men are second to none.

Lately our thoughts have been of the future. Each organization has its post-war plans; if you notice, education

looms large in them all. The future of industry as a whole and of government depends on our well-educated and civic-minded citizens. To be specific, the future of the City of Pittsburgh depends in large part on the loyal support its educational institutions receive. I have been even more specific in choosing as my subject today, "On, Carnegie!" To me this means the future of Carnegie as a distinguished seat of learning and of each of its graduates as men and women of courage, ambition, and intellectual honesty.

Most of you have acquired an education in rather a piecemeal fashion. At times you have no doubt been completely unaware of our hopes and our plans for you. Therefore, I believe that today you deserve a summary of what we are doing and plan to do at Carnegie—a sketch of our accomplishments and our ambitions in engineering and science.

Although an expedited educational program has kept our loyal faculty on continuous duty throughout the past four years, they have been able at the same time to build for the future. Under the leadership of our President, who has served the Institute for the past ten momentous years, Carnegie has forged to the front with a farsighted and progressive educational program. President Doherty's philosophy has not only been put into effect at Carnegie, but is gradually being recognized elsewhere. The program as a whole maintains a balance between undergraduate work, graduate work, and research. These three activities are interdependent and of equal importance.

The first requisite of programs in undergraduate work, graduate work, and research is that they be directed by engineers and scientists of distinction. To keep such faculty members requires adequate salaries, equipment, space, and—last but not least—students of promise. The latter, by the same token, are attracted to an institution because of the caliber of its faculty. I have admitted that Carnegie students are second to none; I can also say with

pride that our faculty is second to none!

Ninety per cent of the men who complete an undergraduate curriculum do not go into graduate work. Therefore, undergraduate programs must equip the student adequately for the steps that lie ahead, either in industry or, for the small percentage, in graduate work leading to research. The basic or undergraduate program at Carnegie was the first to undergo revision. I say boldly that we are in the lead among engineering colleges in our approach to undergraduate instruction. Each curriculum consists of three interrelated stems—the basic science, the technical, and the social relations. The objective of our program is to help the student to analyze and solve problems in the light of principle and evidence, to understand the evolution of society, to work with others, to live his own life well, and to serve mankind.

A faculty committee has redesigned every curriculum in engineering and science to achieve the above objectives. Another committee dealing with the subjects offered in the first two years is making a long-range study to co-ordinate basic courses with one another and with advanced courses; to improve teaching technique; and to develop in the student greater power of analysis. An experimental course is being operated in each department so that the very best content and method of instruction can be achieved.

It has long been our desire to have a small institution with very high standards and a faculty of international reputation. Quality is our goal. Therefore, we have a dual responsibility: to admit only students of promise; and to make the best of each student, develop his powers to the utmost, once he has been admitted. I might add that in the development process, it helps if we have the student's cooperation!

Unfortunately, engineering has not kept pace with the physical sciences in the graduate field. Too often, difficult wartime assignments were given to physicists, chemists, and mathema-



Army barracks supplied by the Federal Public Housing Administration and installed by the college will house 200 of the single veterans studying at Carnegie Institute of Technology this semester. One hundred and fifty veterans' families still need living quarters. With 3,000 students registered—the largest number ever enrolled—the housing problem has been acute. Some 6,600 veterans applied this year, of whom only about one third could be admitted.

ticians because of the paucity of engineers with graduate and research experience. With few exceptions, graduate work in engineering has been to a great extent limited to programs leading to the master's degree; the scientific level of the work has rarely been above that which prevailed in the undergraduate training of engineers; research has been small in volume and all too frequently not of fundamental character.

Due to the complexity of the problems involved in modern engineering development in our major industries, there is great need for engineers who have had graduate training of the right kind—training which assures a mastery of the basic science underlying the student's field of engineering, develops his power of analysis, prepares him to pursue independent research with competence, develops his scholarly style, and awakens his responsibilities in civic affairs. It is difficult to imagine how this training can be provided on the proper scale by the engineering colleges unless more engineering professors are themselves engineering scientists and civic minded. This may mean

that administrators will have to find additional funds to compete with industry for talented men. Graduate work in engineering deserves much greater emphasis than it has received in the past.

I am pleased to say that graduate work at Carnegie is being encouraged and supported. A substantial portion of our resources is allotted to this essential activity. Many educational foundations, industries, and the armed forces are contributing to its advancement. A committee has clearly formulated its objectives. High standards for admission and performance of graduate students have been established, and the general methods whereby we expect to test the attainment of our objectives have been evolved. We have the largest graduate student body in the history of the institution. Applications are being received from all over the world. Enrollment is limited in order not to exceed our resources. Hundreds of competent applicants must be turned away. Outstanding engineers and scientists have been appointed to carry out the work. Equipment, space, and time are

being provided. The future never looked brighter.

A scientist or engineer of note is usually attracted to a faculty for the dual purpose of teaching and carrying on research in his field. The reputation of an institution for scholarly endeavor is thus built on the productive research of its faculty members. Research, the third activity in our Carnegie program, is carried out in the departments and in the Coal and Metals Research Laboratories. During the war, when the physical facilities and the manpower of the Carnegie Institute of Technology were put at the disposal of the Government, research was greatly emphasized. Many faculty members carried on important research activities both on and off the campus in the fields of ordnance projects, metallurgy, explosives, communications, and atomic energy. In peacetime, research is done on the campus by graduate students in engineering and science, by members of the faculty, and by investigators connected

with established research laboratories.

I have pointed out to you that education in engineering and science requires capable students, a competent faculty, adequate space and equipment, and a generous budget. Few institutions are in as favorable a position financially as Carnegie. Through the generosity of alumni and friends of the Institute, \$4,000,000 has been contributed to provide professorships, scholarships, buildings, and unrestricted funds. To this amount the Carnegie Corporation of New York has recently added \$8,000,000. The endowment of the institution has thus been increased to a total of \$28,000,000, and the present value of the physical plant exceeds \$7,500,000, which will enable the institution to render increased service in future. I would be remiss if I did not mention that if we are to hold our place, we must obtain more.

I have told you now of our achievements and of our ambitions for Carnegie. While I was planning to tell you this, I also wondered what I could say, in parting, that might be of use to you in the years ahead. Perhaps many of you have already determined to begin or to continue advanced study; perhaps from this class more than the usual ten per cent will go on with their formal education. Indeed, twenty per cent of the group before me will be awarded graduate degrees today. Those who do not should keep in mind that no one can achieve all knowledge, but that its pursuit is a continuous necessity and a never ending delight. My suggestion is that you use the same courage, perseverance, and intellectual honesty in continuing your education that you have shown in completing your undergraduate study, and that you put all your formal training and war experience to work in the uplift of your profession and of your fellow man.

Our best wishes are always yours. Our doors are always open to you. Members of the Class of 1946, I wish you Godspeed in the task that lies ahead. On, Carnegie!

“ TREASURE CHEST ”

The Pennsylvania Bog in Botany Hall at Carnegie Museum reproduces a quaking bog around a small pond in the northwestern part of the state, with glorious autumn background of dark green pine and golden maple.

Such a pond originated toward the end of the Glacial Period when the earth caved in, forming a bowl-shaped depression known as a kettle-hole. Filling with cold underground water, this constituted a suitable habitat for northern plants forced southward by the advancing ice, while on the higher ground all around, plants moved in later from farther south.

Around the open water of such kettle-hole ponds frequently occurs a more or less floating mat of grayish-green sphagnum mosses interlaced with roots such as the little trailing cranberry vines with their disproportionately large fruits, and other unique bog plants: the cotton grass, the sundew, the pitcher plant, and the poison sumach whose leaves are as beautiful in their golden autumn colors as they are poisonous to the touch. There is the winter holly with clusters of bright red berries and the swamp loosestrife, its stems arching over the water, bedecked with brilliant orange-red foliage.

BUG-HUNTING BETWEEN BATTLES

BY WALTER R. SWEADNER

Curator of Entomology, Carnegie Museum

IN each man's soul there is a thirst for adventure, a longing to see far places. While most of us must stay at home, become armchair explorers, the recent War literally picked up millions of our young men and tossed them to the storied ends of the earth. Those who had gotten a taste of the joys of observing the manifold activities of nature, who had listened for the call of the peewee, or had boasted of the capture of a rare beetle, looked forward to new contacts in foreign lands, to the capture of exotic butterflies, furry treasures, queer reptiles. For most soldiers and sailors, war is a few hours of intense, dangerous activity, set here and there in long monotonous weeks of "made work." Our young naturalists planned to use this time collecting. Disillusion was in store for most.

The training camps in this country were cities into which wild things dared not venture. The experience of John Bauer, the insect preparator at Carnegie Museum, is typical. Although an industrious, well-trained collector, he was able to send back from camp only a few ragged specimens picked off the radiator of his truck. Overseas the pattern repeated itself with variations. Training areas were too crowded; combat areas, mined. If an unlucky specimen came within reach, it was sure to be destroyed in the barracks bag or in the mail en route home. Out of the hundreds of GIs who were "museum graduates," many of them ardent collectors, only a handful succeeded in bringing back collections to show the home folks. Most of these specimens, if they had been local material, would have been discarded because of their poor condition.

The results of these collecting expeditions have been on display in the

Bird Hall of the Carnegie Museum the past few months and will remain until November.

The greatest number were brought back by Mr. Bauer, who was fortunate in being stationed in Dehra Dun, India, tantalizingly close to the mountains of Kashmir, where fly the aristocratic *Parnassius* butterflies and the elusive *Karanasa*. The mountains remained out of reach, but the jungles and bush yielded many fine beauties—the famous leaf butterflies, fragile swallowtails, brilliant metallic-hued *Theclas*.

Another North Side GI, John K. Oswald, of Millvale, although lacking the collector's training of Mr. Bauer,



CASTALIUS ROSIMON (Top)

From India

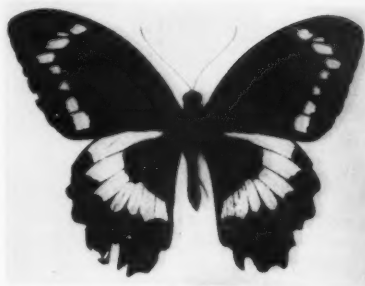
NYCTALEMON MENOETIUS

AGALOPHE BIFASCIATA

Both from Assam

devised his own methods and brought back another brilliant array from Assam. Leonard A. Wenzel, an officer on a troop transport, had opportunities for short forays on many Pacific islands, and brought back the best preserved and in many ways the most interesting collection. Richard Fox, another seafaring landsman, also brought back butterflies from the islands. Robert Alrutz, the only one of our trained entomologists who succeeded in getting into entomological work in the armed forces, was handicapped by the too efficient work of his branch. Frequent dustings of DDT not only killed the vermin, but also decimated the other insects. Most of his material came back in alcohol and is not well suited for display. Norman H. Morrison sent us some very interesting flies from Africa, including the disease-bearing tsetse (pronounced as spelled) and some grotesque Diptids whose eyes are on the ends of long stalks.

Perhaps the most unusual collection of all came to us by a roundabout route from Nigeria, Africa. An unidentified weatherman sent us fifty butterflies in



PAPILIO HECATAEUS (female)
From Guadacanal

small lots in ordinary air-mail envelopes, addressed to our friend, Captain Ernest Tinkham, who was supposed to have been stationed in Florida. Tinkham, however, had been transferred to the Pacific Area. The butterflies followed him to Saipan, to Okinawa, to Japan, and finally caught up in Korea. He sent them to Pittsburgh for identification. They are on display with the others, and while showing some wear they are in remarkably good condition considering their travels and unorthodox shipping containers.

Many other collections did not make the grade; for instance, a much battered blue *Papilio* arrived from New Guinea and several small boxes of assorted parts of beetles and bugs came in from India. Most of the men who have dropped in to the lab to visit have told of specimens destroyed, specimens that eluded the nets improvised from helmet linings, specimens that flew over the woods or the fields or the jungles that could not be reached.

A LETTER

From Shippenville, a recent letter to the Carnegie Library of Pittsburgh:

"We wish to inform you that Harvey Mong has passed away during this month. The service which you gave to him during his sixteen years of blindness was such an important factor to his happiness and daily living. He enjoyed his reading machine and operated it himself.

"We wish to thank your Division for the Blind for all their kindness and consideration to him. We hope this service can be continued to all who have had to live in darkness and send our personal thanks to you, who have so ably handled this."



GLOSSINA PALPALIS (TSETSE FLY)
From Senegal Africa

SHAKESPEARE REREAD

BY AUSTIN WRIGHT

Head, Department of English, Carnegie Institute of Technology

DURING the past summer I had occasion to reread all the plays of Shakespeare, an enviable experience of the sort that comes all too seldom to anyone living in these feverish times. So unusual was the opportunity, indeed, that I trust my urge to share a few of the highly unoriginal conclusions to which I came in the process will be regarded with indulgence.

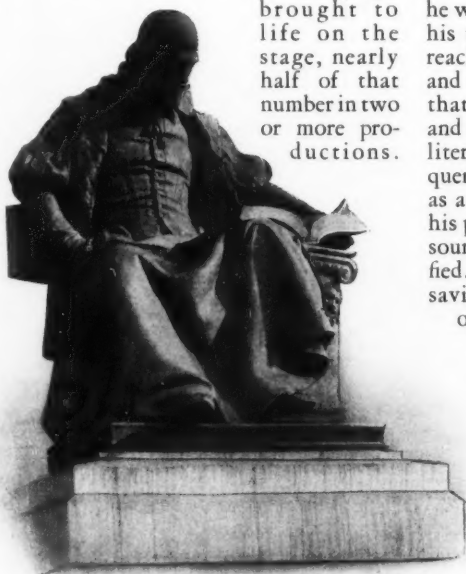
One of the few—the very few—compensations of growing older is an increasing ability to read Shakespeare against a background of memories of productions of the plays. Thanks in large part to the Shakespearian tradition of the Department of Drama at Carnegie Tech, I have seen twenty-three

of the plays brought to life on the stage, nearly half of that number in two or more productions.

Under such circumstances the reader's mind recurs constantly to the treatment of particular roles and passages in the actual theatre, and one's enjoyment of a scene is often vastly heightened as a result. It is certain, for example, that no one who saw the Tech production of *As You Like It* last spring will ever reread the woodland scenes and the speeches of Rosalind without remembering vividly and with delight the brilliant handling of the play on that occasion.

A rereading of Shakespeare confirms, first of all, the almost universal judgment that he is indeed the greatest of all writers. His supremacy lies in his amazing knowledge of the nature of man and his unique gift of expression. He is a master dramatist as well, but he wrote for the stage simply because in his time that was the readiest way to reach an audience and to make money, and it is as a philosopher and a poet that he towers over his contemporaries and indeed bestrides the world of literature like a Colossus. He is frequently criticized for lack of originality as a weaver of plots, for practically all his plays stem more or less directly from sources which have been clearly identified. But here Shakespeare was merely saving time and following the custom of the Elizabethan theatre.

Though probably more silly things have been said through the centuries about Shakespeare than about any other writer, the reader of any good modern edition comes perforce to feel admiration for the scholarship which has given us such an excellent text and provided such a body of wise and illuminating criticism. Even a brief study of the earliest editions



of some of the plays indicates the countless textual difficulties which face editors and which have for the most part been solved with a combination of insight and good sense that does credit to scholarship, while the patient researches of students of Elizabethan life and language have enabled us to read Shakespeare with almost as full an understanding as was enjoyed by his contemporaries.

Take, for instance, the most famous textual emendation in Shakespeare—Theobald's alteration, in the speech of the Hostess describing Falstaff's death, of "a Table of green fields" to "'a babbled of green fields.'" This brilliant and, it seems to most readers, unquestionably correct conjecture changes an unintelligible phrase into one which heightens the pathos of an already almost intolerably pathetic scene. Where the specialists are in most danger of going wrong, it seems to me, is in their efforts to defend Shakespeare at all costs against imputations which they feel reflect upon his work or his character. Thus, like the Player-Queen, they do protest too much that in Prince Hal's early soliloquy about Falstaff and his disreputable cronies it is not a somewhat priggish Prince speaking but only the author assuring his audience that all will turn out well in the end; or that in creating Shylock, Shakespeare is not to be charged with even the least taint of that anti-Semitism which was rife in the England of his day.

It must be confessed that a reader of the entire Shakespearian canon becomes aware of considerable unevenness of quality. Indeed, those worshipers who insist that every line of the master is sacred and above reproach are doing a disservice to the god of their idolatry. George III of England was not a literary critic, but one cannot shrug aside with contempt that Teutonic monarch's sly remark to Fanny Burney, "Was there ever such stuff as great part of Shakespeare? Only one must not say so. But what think you? What? Is there not sad stuff?" Well, "great part" is manifestly

It is really astonishing how many of the world's foremost men have begun as manual laborers. The greatest of all, Shakespeare, was a wool-carder; Burns, a plowman; Columbus, a sailor; Hannibal, a blacksmith; Lincoln, a rail-splitter; Grant, a tanner. I know of no better foundation from which to ascend than manual labor in youth.

—ANDREW CARNEGIE

(From a letter to the Mayor of Pittsburgh in November 1930.)

and absurdly severe, but though even the poorest plays contain passages which bear the authentic stamp of greatness, there are other passages which in comparison with the best plays are not unfairly described as "sad stuff." *The Comedy of Errors* and *Coriolanus* and *Cymbeline*, for example, and the first three acts of *Timon of Athens* seem to me to have little to recommend them. *The Two Gentlemen of Verona* is redeemed chiefly by that first-rate clown Launce, and I must confess—with some misgiving!—that some stretches in even such comparative favorites as *The Taming of the Shrew*, *The Merry Wives of Windsor*, and *A Midsummer-Night's Dream* seemed to me this time flat and tiresome.

But what other writer even approaches the power and understanding and beauty found everywhere in the greatest plays? If only any single one of twenty Shakespearian plays—or the matchless sonnet sequence—had survived, it would be sufficient to stamp the author as the greatest writer of his age, and the thirty-seven or thirty-eight plays taken together form the most remarkable literary achievement in history.

Which seem the greatest plays to one who has just reread all of them? *Hamlet* first, without question. Popular and critical judgments agree in giving it the palm, and rightly so. But to award second place is less easy. Among the tragedies I suppose *Lear* must come next, though the painful story of *Orbello* is so moving that one can hardly bear to read it, and though there are

scenes in *Macbeth* and *Antony and Cleopatra* unequaled elsewhere. Among the histories *Henry the Fourth*, Part I, seems to me outstanding if for no other reason than that incomparable scene in which Falstaff's boasts of valor at Gadshill are exposed and, later, Falstaff and the Prince enact a mythical interview between Hal and his royal father. But the Falstaff-Shallow scenes in Part II are almost as good, and the sheer poetry of Richard's speeches in *Richard the Second* and the superb martial rhetoric of Hal's in *Henry the Fifth* are marvelous. Perhaps most troublesome of all to one trying to choose favorites are the comedies. But here, in spite of all that can be said for *Twelfth Night*, which is probably the choice of most readers, and *Much Ado about Nothing*, I must cast my vote for *As You Like It* and for Rosalind as my favorite Shakespearean heroine.

It is said that every actor has a desire to play Hamlet, and every actress to play Juliet. A psychiatrist might hazard a shrewd guess as to the temperament of a reader on the basis of what Shakespearean roles he would most like to play. Hamlet and Lear and Iago and Falstaff and Benedick and Shylock are of course beyond our humble conception, but one may imagine oneself reveling in the role of Shallow, for instance, or feel a wistful desire to philosophize as Jaques or to play Enobarbus and "earn a place i' th' story," or be unkindly persuaded by those near and dear that one was born to play Bottom.

Individual passages come thronging to remembrance as one reflects upon a summer rereading of Shakespeare—Dogberry's charge to the Watch, his examination of the conspirators, and his regretful "O that I had been writ down an ass!"; the windy platform at Elsinore and the taut, suspenseful play scene in *Hamlet*; the love scenes in *Romeo and Juliet*; the death of Desdemona, and of Cleopatra; the mad speeches of Lear and his touching reunion with Cordelia; the wit combats of *Love's Labour's Lost* and *Much Ado about*

Nothing; lyrics like "O mistress mine" and "Fear no more the heat o' th' sun"; Prospero's speech beginning "Our revels now are ended"; such a chance bit of Shakespearian magic as Armado's "The sweet war-man is dead and rotten; sweet chucks, beat not the bones of the buried. When he breathed, he was a man"; or the dying Mercutio's "No, 'tis not so deep as a well, nor so wide as a church-door; but 'tis enough, 'twill serve"; or Rosalind's mocking "Men have died from time to time and worms have eaten them, but not for love."

But if I were forced to select what seems to me the greatest passage in Shakespeare, I should have to pass by these and many more—including the soliloquies of Hamlet—in favor of that moment when the aging, weary Macbeth, arming for his final contest with a malign destiny, learns of his wife's death and delivers his sad, terrible commentary upon human existence:

She should have died hereafter;
There would have been a time for such a word.
Tomorrow, and tomorrow, and tomorrow
Creeps in this petty pace from day to day
To the last syllable of recorded time;
And all our yesterdays have lighted fools
The way to dusty death. Out, out, brief candle!
Life's but a walking shadow, a poor player
That struts and frets his hour upon the stage
And then is heard no more. It is a tale
Told by an idiot, full of sound and fury,
Signifying nothing.

BALINESE CARVINGS

B KENNETH JOHNSTONE's native wood carvings from Bali are on display in the Art Division of the Carnegie Library this month. The first collection of Balinese culture to reach this country, the fourteen figures were originally displayed in the Grand Central Galleries, New York City. Mr. Johnstone spent six months on the Island in 1932, after three years of study under the Rome Prix.

The figures were done "much as an Iowa farmer whittles a stick," says Mr. Johnstone, "but definitely reflect the intellectual caste of the artist."



THE GARDEN OF GOLD



SINCE the Endowment Fund drive for Carnegie Tech was successfully completed in June with gifts totaling \$4,065,157.85 and well past the \$4,000,000 goal, the Garden of Gold becomes more especially the property of Carnegie Institute. Gifts for endowment at Tech have continued at a normal rate and the Institute, in particular the Museum, has been the recipient of several very generous contributions.

Richard K. Mellon has presented \$5,000 for the survey of mammal life in Pennsylvania currently being directed by the Museum, described by J. Kenneth

Dout in *CARNEGIE MAGAZINE* for July.

From John B. Semple has come \$1,000.

George H. Clapp has given \$1,000 for the same purpose; Lawrence C. Woods, Jr., \$150; and Frank W. Preston, \$50.

T. A. Mellon has added \$4,000 to his preliminary gift of \$1,000 to finance the expedition to Alberta, conducted this summer by Arthur C. Twomey.

Substantial contributions were made for the Museum work in archeology in Utah, headed by David W. Rial. C. E. Cowan presented \$4,500; Edward Crump, Jr., Inc., gave \$200; and C. B. Shaler, \$100.

OUT OF DOORS



ON chilly October mornings when white frost lingers in the shadows, many a plant is killed, not by frost but by drought. Water

in the cells freezes out into air spaces in the leaves, in bright sunshine the ice melts, the water evaporates before the leaves can again absorb it, and they dry out and shrivel. Smog may save many a plant on a frosty morning.

Outside the city the leaves are already tinted crimson on the sour gum and flowering dogwood and scarlet or yellow on the red maple. In the city the hazy air and the dust on the leaves lessens the effects of the light, but nevertheless the fan-shaped leaves of the ginkgo become pleasingly yellow and the star-shaped leaves of the sweet gum, a bronze gold. On the Somerset uplands by mid-October the golden glow of the sugar maple mingles with the scarlet of red maple, the blue-green of white pine, and the bronzing green of the oaks, climaxing the autumn.

October's chill stills the buzzing of the cicada in the shade tree and slows down the chirping of the cricket in the garden. Sparrows are on the ground eating seeds, inconspicuous among the fallen leaves, while the black-and-brown belted woolly bear caterpillar frantically crosses the street. A falling Norway maple or London plane leaf formed enough sugar or starch during the growing season to cover it the thickness of a dime, but this was all used or else stored away in the tree before the leaf fell. It also evaporated water enough to have covered it about four inches deep, but minerals from the soil meanwhile remained which now contribute to the fragrant suburban odor of burning leaves and to the good-sized heap of ashes.—O.E.J.

The caged creature of the stuffy indoors—which we all, mostly, are—is the reader for whom Dr. O. E. Jennings slants his monthly column. Last year in *CARNEGIE MAGAZINE* he wrote "Woodland Path," but, alas, most of us are too lazy or too stuck in our rut ever to make a break for the woods. This year, therefore, he writes for us office slaves, kitchen serfs, and parlor or entertainment-hall captives who can snatch a quick glance as we go and come on the city streets.

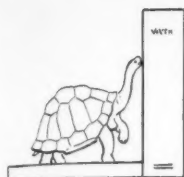


r July.
\$1,000.
000 for
Woods,
\$, \$50.
to his
nce the
d this

made
ogy in
C. E.
ward
C. B.

ing of
slows
in the
nd eat-
k-and-
rpillar
falling
ne leaf
during
it the
was all
ree be-
orated
about
om the
a now
urban
good-

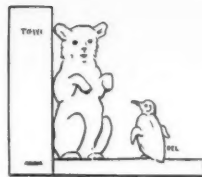
—which
om Dr.
an. Last
"Wood-
lazy or
t for the
for us
or enter-
a quick
rets.



THE SCIENTIST'S BOOKSHELF

By M. GRAHAM NETTING

Curator of Herpetology, Carnegie Museum



MAN-EATERS OF KUMAON. By JIM CORBETT. New York: Oxford University Press. 1946. 235 pp., 5 photographs. \$2.00. Carnegie Library call no. 799 C81.



LATELY I have become strangely immune to the lure of detective stories. This is a dangerous admission, for I realize that I am forswearing resemblance to contemporary great minds by shunning the latest "whodunit." What irks me most is that fictional sherlocks become tougher, swifter, and more intuitive, while real life detectives often lose the trail. You may imagine, therefore, with what pleasure I read Major Jim Corbett's account of his thirty-two-year-old hobby of tracking down dangerous outlaws. True, the criminals in these cases were not human beings, but unfortunate tigers, impelled by physical disabilities to become killers of men. Here there is no romantic confusion to becloud the issue, no wanton cruelty, but there is a plenitude of sustained horror. Each of these killers numbered his victims by scores or even hundreds. The Champawat tigress accounted for 200 human beings in Nepal before she was driven over the border into Kumaon. There, in the succeeding four years, she killed 234 more!

Once, relying upon the assurances of a zoo director, I gingerly patted a caged tiger. Now my fear of normal tigers has been so nearly erased that I am ready to go frog-hunting in an Indian jungle, as soon as a rajah sends me a plane ticket. On the other hand, my fear of a man-eater, respect for its boldness and

cleverness, and sympathy for those unfortunates living in its territory have been vastly increased. I had imagined the man-eater coming by stealth at night, making off with a victim, and then avoiding the scene until long afterward. Not so! A man-eater may pull a victim out of a tree as other leaf-gathering natives watch helplessly, cut communications between villages, terrorize thousands of woodcutters so that lumber operations are jeopardized, prevent the harvesting of fields immediately adjacent to villages, or even cause the abandonment of entire settlements.

It was against such culprits in the Kipling country of northern India that Jim Corbett took up his rifle and whistled up his dog Robin. Two conditions he made: rewards must be withdrawn and other hunters recalled. He neither craved the former nor cared to risk being shot accidentally. He never carried a cocked gun, and he customarily hunted man-eaters alone, "for if one's companion is unarmed it is difficult to protect him, and if he is armed, it is even more difficult to protect oneself." One wonders if Major Corbett might not class deer-hunting in Pennsylvania as too dangerous for him!

"When a tiger that has not been disturbed leaves his kill out in the open, it can be assumed that he is lying up close at hand to guard the kill from vultures and other scavengers. . . . Tigers are troubled by flies and do not lie long in one position. . . ." Such statements are woven into the narrative so casually that the author's command of jungle lore is self-evident, without Lord Litlingow's affirmation in the foreword, "no man with whom I have

hunted in any continent better understands the signs of the jungle."

As a reformed detective story reader, however, I wish at times that Major Corbett would explain how he knows that the pug mark was made yesterday afternoon, by an average-sized tigress in the prime of life, or how he deduces, from roadside scratches, a veritable biography of the tiger that left its signature. This calm assumption that all his readers know the rudiments of tiger-tracking is one of the faults of this book. The five illustrations appear to have been reproduced from the Indian edition; if wartime exigencies made this necessary, some explanation should have been offered to safeguard the author's reputation as a photographer. These are, however, minor defects in a book that merits shelf space beside Patterson's classic account of man-eating lions, *Man-eaters of Tsavo*.

Leopards are mentioned incidentally, but informatively. Both leopards and tigers relish porcupines, but leopards alone have perfected a safe technique of catching them. Handicapped tigers become man-eaters; leopards, being part-time scavengers, may acquire a taste for human flesh during periods of famine or pestilence when uncremated bodies accumulate, or they may become man-eaters when their natural prey is wiped out by unrestrained hunting.

Man-eating leopards never become bold enough to kill their human victims by day, and hence are harder to shoot than man-eating tigers. The following quotation, however, bespeaks Major Corbett's high regard for the leopard. "Those who have never seen a leopard under favorable conditions in his natural surroundings can have no conception of the grace of movement, and beauty of coloring, of this the most graceful and the most beautiful of all animals in our Indian jungles. Nor are his attractions limited to outward appearances, for, pound for pound, his strength is second to none, and in courage he lacks nothing."

The author's outdoor interests are by

no means restricted to the pursuit of man-eaters. After a day devoted to an attempt to photograph a young tigress and her cubs, not a man-eater but "nervous as all young mothers are," he enjoys wetting a line in a likely pool. The fact that his favorite river harbors mugger crocodiles and eighteen-foot pythons does not weigh heavily enough to influence his belief that, "Fishing for mahseer in a well-stocked submontane river is, in my opinion, the most fascinating of all field sports." As a fisherman, Corbett is unusual, for after landing a large mahseer on a trout rod he observes: "I had no means of weighing the fish and, at a rough guess, both the men and I put it at fifty pounds. The weight of the fish is immaterial, for weights are soon forgotten. Not so forgotten are the surroundings in which the sport is indulged in."

I wonder if any other man has ever known tigers so intimately, loved them so fervently, and yet pursued the culprits among them so indefatigably. Those who maintain that killing animals brutalizes the sportsman and gives his trigger finger St. Vitus dance should ponder this hunter's lament after having killed a magnificent tiger under the misapprehension that a native-inflicted wound was serious enough to induce man-eating. "... never again would the jungle folk and I listen with held breath to his deep-throated call resounding through the foothills, and never again would his familiar pug marks show on the game paths that he and I had trodden for fifteen years."

It is fervently to be hoped that British and Indian veterans, apprised of Major Corbett's generosity in dedicating the profits from the first Indian edition of this book to the aid of blinded soldiers, will champion his plea for tiger conservation, "... a tiger is a large-hearted gentleman with boundless courage and when he is exterminated—as exterminated he will be unless public opinion rallies to his support—India will be the poorer by having lost the finest of her fauna."

THE EDITOR'S DESK

The Power Strike of '46 finds Carnegie Institute an oasis of "business as usual." Our own Bellefield Boiler Plant keeps the staff warm, lit up, and elevated, and friends offer a "lift" when needed. The doors are already sealed on Painting in the United States, 1946; Library convention plans are well in hand; the Reference Room has finished its fall housecleaning; and weekend organ recitals are beginning. Visitors at the Institute decreased several hundred on weekdays and over a thousand Saturday and Sunday during the strike.

~*~

Virginia Chase, the new head of the Boys and Girls Department of the Library, will speak to the Minnesota Library Association on "Stars To Steer By" at the convention this month in St. Paul.

~*~

The three-cent commemorative postage stamp on a letter in this morning's mail brings to mind the Smithsonian Institution, celebrating its Centennial this year. How does it feel to be a hundred years old? The century has seen the Smithsonian grow into five buildings on the Mall at Washington, numerous other structures at the National Zoological Park, and regular publication in fourteen different scientific fields. The National Gallery of Art given by Andrew W. Mellon, too, was an outgrowth. Hearty congratulations on this occasion!

~*~

Walter Sweadner addressed the Biology Teachers Club of Southwestern Pennsylvania last month on "Laboratory Techniques in Entomology" at the Carnegie Museum.

~*~

While cruising on the Allegheny River one afternoon last month with the United Smoke Council of the Allegheny Conference on Community Development, Graham Netting took kodachrome photographs of smoke conditions along shore. After the October-first deadline on industrial smokestacks, another voyage is planned.

~*~

"Glass Cut at Pittsburgh" in *CARNEGIE MAGAZINE* for June was reprinted in *National Glass Budget and Collectors Round-Up* this summer.

~*~

Tech may well be proud of a letter referring to the Army Specialized Training Program under which 2,601 men were given instruction. The letter reads: "The thanks of a grateful government for the unstinted and wholehearted co-operation given to the War Department in the preparation, conduct, and successful completion of programs of instruction for Army personnel. The training so provided was a vital part of the national effort."

~*~

O. E. Jennings took the American Astronomers Association of Pittsburgh "Afield in Western Pennsylvania" at a recent meeting in Buhl Planetarium.

CARNEGIE LIBRARY OFFICERS AND COMMITTEES

WILLIAM FREW, *President*
WILLIAM WATSON SMITH, *Vice President*
A. L. WOLK, *Secretary*
THOMAS L. ORR, *Treasurer*

LIBRARY COMMITTEE

A. L. WOLK, *Chairman*
JOHN F. CASEY, *H. B. KIRKPATRICK*
WALTER R. DEMMLER, *WILLIAM S. MOORHEAD*

BUILDINGS AND GROUNDS COMMITTEE

JOHN F. CASEY, *Chairman*
ARTHUR E. BRAUN, *THOMAS J. GALLAGHER*
FRED W. WEIR

FINANCE COMMITTEE

ARTHUR E. BRAUN, *Chairman*
JOHN F. CASEY, *THOMAS L. ORR*

AUDITING COMMITTEE

FREDERICK G. BLACKBURN, *Chairman*
WILLIAM S. MOORHEAD, *A. L. WOLK*

~*~

STAFF

RALPH MUNN, *Director*
MARTHA V. WIRTH, *Executive Secretary*
WILLIAM W. BRYAN, *Assistant to the Director*
ENID MCP. BOLI, *Readers Consultant*

DEPARTMENT AND DIVISION HEADS

ADALINE BERNSTEIN, *Order*
VIRGINIA CHASE, *Boys and Girls*
MARIAN COMINGS, *Art*
KATHERINE E. CRUMRINE, *Central Lending*
ROSE DEMOREST, *Pennsylvania*
MARY E. FOSTER, *Schools*
ELWOOD H. McCLELLAND, *Technology*
RUTH D. MCCOLLOUGH, *Cataloguing*
ALICE T. MCGIRR, *Reference*
IRENE MILLEN, *Music*
ARTHUR D. SCOTT, *Printing and Binding*
MABEL E. ZEARLEY, *Central Boys and Girls*

BEQUESTS

In making a will, bequests for the Carnegie Library may be as follows:

*I do hereby give and bequeath to the
CARNEGIE LIBRARY OF PITTSBURGH*

.....Books, orDollars

CARNEGIE MAGAZINE

CARNEGIE INSTITUTE OFFICERS AND COMMITTEES

WILLIAM FREW, *President*
ROY A. HUNT, *Vice President*
AUGUSTUS K. OLIVER, *Secretary*
THOMAS L. ORR, *Treasurer*

MUSEUM COMMITTEE

RICHARD K. MELLON, *Chairman*
FREDERICK G. BLACKBURN H. J. HEINZ II
GEORGE H. CLAPP W. L. MELLON
WALTER R. DEMMLER JAMES C. REA
JOHN T. DUFF, JR. FREDERIC SCHAEFER
HOWARD N. EAVENSON JOHN B. SEMPLE
LAWRENCE C. WOODS, JR.

FINE ARTS COMMITTEE

ROY A. HUNT, *Chairman*
EDWARD DUFF BALKEN WILLIAM S. MOORHEAD
J. FREDERIC BYERS AUGUSTUS K. OLIVER
ROBERT E. DOHERTY THOMAS E. ORR
HOWARD N. EAVENSON CHARLES J. ROSENBLUM
DAVID L. LAWRENCE FREDERIC SCHAEFER
WILLIAM WATSON SMITH

AUDITING COMMITTEE

FREDERICK G. BLACKBURN, *Chairman*
WILLIAM S. MOORHEAD A. L. WOLK

FINANCE COMMITTEE

ARTHUR E. BRAUN, *Chairman*
JOHN F. CASEY THOMAS L. ORR
ROY A. HUNT JAMES C. REA
WILLIAM M. ROBINSON

PENSION COMMITTEE

HOWARD N. EAVENSON, *Chairman*
H. J. HEINZ II AUGUSTUS K. OLIVER
EDWARD J. LEONARD JAMES C. REA

MUSIC HALL COMMITTEE

WILLIAM P. WITHEROW, *Chairman*
JOHN F. LABOON JOHN LESTER PERRY
EDWARD J. LEONARD JAMES C. REA

ADVISORY COMMITTEE

FREDERICK G. BLACKBURN RICHARD K. MELLON
ARTHUR E. BRAUN AUGUSTUS K. OLIVER
JOHN F. CASEY THOMAS L. ORR
HOWARD N. EAVENSON WILLIAM WATSON SMITH
ROY A. HUNT WILLIAM P. WITHEROW
A. L. WOLK

NOTE: The President is ex officio a member of all Committees.

CARNEGIE INSTITUTE STAFF

WILLIAM FREW, *President*

J. C. JEFFRIES, *Auditor*
MELVA Z. BODEL (Mrs. C. G.), *Assistant Treasurer*
MINNIE C. RANKIN, *Secretary to the President*

DEPARTMENT OF FINE ARTS

HOMER SAINT-GAUDENS, *Director*
JOHN O'CONNOR, JR., *Assistant Director*
ANNE K. STOLZENBACH, *Secretary*
MARGARET M. LEE, *Director of Educational Work*

CARNEGIE MUSEUM

ANDREY AVINOFF, *Director Emeritus*
O. E. JENNINGS, *Acting Director, Curator of Botany and Director of Public Education*
J. KENNETH DOUTT, *Curator of Mammalogy*
E. R. ELLER, *Curator of Invertebrate Paleontology and Geology*
OTTMAR F. VON FUEHRER, *Staff Artist*
ARTHUR W. HENN, *Curator of Ichthyology and Editor*
J. LEROY KAY, *Curator of Vertebrate Paleontology*
M. GRAHAM NETTING, *Curator of Herpetology*
WALTER R. SWEADNER, *Curator of Entomology*
ARTHUR C. TWOMEY, *Curator of Ornithology*
ANNE PATRICIA WALLGREN, *Librarian*

CARNEGIE MUSIC HALL

MARSHALL BIDWELL, *Organist and Director of Music*
ROY B. AMBROSE, *Manager*

DEPARTMENT OF BUILDINGS & GROUNDS

ROY B. AMBROSE, *Manager*
MARY C. HARDY, *Secretary*

BEQUESTS

In making a will, money left to the Carnegie Institute or the Carnegie Institute of Technology, should be covered by the following phrase:

I do hereby give and bequeath to the

CARNEGIE INSTITUTE

(or)

CARNEGIE INSTITUTE OF TECHNOLOGY
in the City of Pittsburgh, Pennsylvania

..... Dollars

CARNEGIE MAGAZINE

CARNEGIE INSTITUTE OF TECHNOLOGY

WILLIAM FREW, *Chairman*
 ROY A. HUNT, *Vice Chairman*
 AUGUSTUS K. OLIVER, *Secretary*
 THOMAS L. ORR, *Treasurer*

ROBERT E. DOHERTY, *President*

EXECUTIVE COMMITTEE

WILLIAM FREW, *Chairman*
 AUGUSTUS K. OLIVER, *Secretary*

FREDERICK G. BLACKBURN* F. B. JEWETT
 WALTER J. BLENKO *ANTHONY J. KERIN
 WALTER R. DEMMLER JOHN F. LABOON
 ROBERT E. DOHERTY *ROSWELL MILLER
 HOWARD N. EAVENSON WILLIAM S. MOORHEAD
 *J. C. HOBBS THOMAS L. ORR
 ROY A. HUNT *CHARLES E. WILSON
 WILLIAM P. WITHEROW
 (*Nontrustee members)

AUDITING COMMITTEE

FREDERICK G. BLACKBURN, *Chairman*
 WILLIAM S. MOORHEAD A. L. WOLK

FINANCE COMMITTEE

ARTHUR E. BRAUN, *Chairman*
 JOHN F. CASEY THOMAS L. ORR
 WILLIAM FREW JAMES C. REA
 ROY A. HUNT WILLIAM M. ROBINSON

— 3 —

STAFF

ROBERT E. DOHERTY, *President*
 ELLIOTT DUNLAP SMITH, *Provost*
 H. R. PATTON, *Controller*
 MELVIN J. VOIGT, *Librarian*

COLLEGE OF ENGINEERING AND SCIENCE

WEBSTER N. JONES, *Director*
 WILLIAM R. WORK, *Assistant Director*
 DOUGLAS F. MINER, *Assistant Director*

DEPARTMENT HEADS

WARREN L. McCABE, *Chemical Engineering*
 FREDERIC T. MAVIS, *Civil Engineering*
 B. R. TEARE, JR., *Electrical Engineering*
 DOUGLAS F. MINER, *Acting Head, Management Engineering*
 THOMAS G. ESTEP, *Acting Head, Mechanical Engineering*
 ROBERT F. MEHL, *Metallurgical Engineering*
 J. C. WARNER, *Chemistry*
 JOHN L. SYNGE, *Mathematics*
 FREDERICK SEITZ, *Physics*
 DOUGLAS F. MINER, *Acting Head, Printing*
 HARRY M. McCULLY, *Drawing and Descriptive Geometry*

COLLEGE OF FINE ARTS

B. KENNETH JOHNSTONE, *Director*

DEPARTMENT HEADS

B. KENNETH JOHNSTONE, *Architecture*
 HENRY F. BOETTCHER, *Drama*
 CHARLES A. H. PEARSON, *Music*
 W. A. READIO, *Painting and Design*
 JOSEPH BAILEY ELLIS, *Sculpture*

MARGARET MORRISON

CARNEGIE COLLEGE

CHARLES WATKINS, *Director*

DEPARTMENT HEADS

HAROLD L. LANG, *General Science*
 CALLA VAN SYCKLE, *Home Economics*
 EDITH M. WINCHESTER, *Secretarial Studies*
 MARY CLARKE BURNETT, *Social Work*
 ROBERT D. GREGG, *Acting Head, General Studies*

DIVISION OF HUMANISTIC AND SOCIAL STUDIES

GLEN U. CLEETON, *Director*
 ELLIOTT DUNLAP SMITH, *Maurice Falk Professor of Social Relations*

DEPARTMENT HEADS

G. LELAND BACH, *Economics*
 AUSTIN WRIGHT, *English*
 ROBERT D. GREGG, *History*
 WILLIAM F. KAMMAN, *Modern Languages*
 MAX SCHOEN, *Psychology and Education*

CARNEGIE LIBRARY SCHOOL

RALPH MUNN, *Director*
 FRANCES H. KELLY, *Associate Director*

COAL RESEARCH LABORATORY

H. H. LOWRY, *Director*

METALS RESEARCH LABORATORY

ROBERT F. MEHL, *Director*

RESERVE OFFICERS TRAINING CORPS

COLONEL PAUL JAMES DOWLING, *Professor of Military Science and Tactics*

DIVISION OF STUDENT PERSONNEL AND WELFARE

BERYL E. WARDEN, *Director*

DIVISION OF PHYSICAL WELFARE

CLARENCE OVEREND, *Chairman of Administrative Committee*

ALUMNI FEDERATION

JOHN L. ELLIOTT, *Executive Secretary*

DEPARTMENT OF PUBLIC RELATIONS

STANLEY R. MARCH, *Director*

CARNEGIE MAGAZINE

BOARD OF TRUSTEES WHO'S WHO

Under the charters the same thirty-six trustees serve both the Carnegie Institute and the Carnegie Institute of Technology, and eighteen of them (starred) are also trustees of the Carnegie Library.

EDWARD DUFF BALKEN
Princeton. Art.

FREDERICK G. BLACKBURN
Yale. Carnegie Institute of Technology. Vice President, Mellon National Bank and Trust Company. Museum, Tech, Auditing, Advisory.

WALTER J. BLENKO
Carnegie Institute of Technology. Law School Duquesne University. Stebbins, Blenko & Webb. Tech.

*ARTHUR E. BRAUN
Chairman, Farmers Deposit National Bank. Buildings and Grounds, Finance, Advisory.

*J. FREDERIC BYERS
Yale. Chairman, A. M. Byers Company. Art.

*JOHN F. CASEY
Duquesne University. Chairman, John F. Casey Company. Library, Buildings and Grounds, Finance, Advisory.

GEORGE H. CLAPP
University of Pittsburgh. President, Board of Trustees, University of Pittsburgh. Museum.

*WALTER R. DEMMLER
City Council. Library, Museum.

ROBERT E. DOHERTY
University of Illinois. President, Carnegie Institute of Technology. Tech, Art.

*JOHN T. DUFF, JR.
Law School University of Pittsburgh. City Council. Museum.

HOWARD N. EAVENSON
Swarthmore. Mining Engineer. Museum, Pension, Tech, Art, Advisory.

*WILLIAM FREW
Yale. Law School University of Pittsburgh. Trustee, Carnegie Corporation of New York.

*THOMAS J. GALLAGHER
City Council. Buildings and Grounds.

H. J. HEINZ II
Yale. President, H. J. Heinz Company. Museum, Pension.

ROY A. HUNT
Yale. President, Aluminum Company of America. Art, Tech, Finance, Advisory.

*THOMAS E. KILGALLEN
Duquesne University. President, City Council. Music Hall.

*H. B. KIRKPATRICK
University of Illinois. President, Pittsburgh Board of Public Education. Library.

JOHN F. LABOON
Carnegie Institute of Technology. Chairman of the Board, Allegheny County Sanitary Authority. Tech, Music Hall.

*DAVID L. LAWRENCE
Mayor of Pittsburgh. Fine Arts.

*EDWARD J. LEONARD
City Council. Music Hall, Pension.

RICHARD K. MELLON
Princeton. Chairman of the Board, Mellon National Bank and Trust Company. Museum, Advisory.

*W. L. MELLON
Chester Military Academy. Chairman, Gulf Oil Corporation. Museum.

*WILLIAM S. MOORHEAD
Yale. Law School University of Pittsburgh. Moorhead & Knox. Tech, Library, Art, Auditing.

AUGUSTUS K. OLIVER
Yale. Chairman of the Finance Committee, Pittsburgh Consolidation Coal Company. Art, Pension, Tech, Advisory.

*THOMAS L. ORR
Hamilton. Vice President, Mellon National Bank and Trust Company. Fine Arts, Tech, Advisory.

JOHN LESTER PERRY
Assistant to the President, United States Steel Corporation. Music Hall.

JAMES C. REA
Princeton. Vice President, Oliver Iron and Steel Corporation. Museum, Music Hall, Pension, Finance.

*WILLIAM M. ROBINSON
Princeton. Law School University of Pittsburgh. Reed, Smith, Shaw & McClay. Finance.

CHARLES J. ROSENBLOOM
Yale. President, Rosenbloom Finance Corporation. Art.

FREDERIC SCHAEFER
University of Pittsburgh. President, Schaefer Equipment Company. Museum, Art.

JOHN B. SEMPLE
Lehigh. Museum.

*WILLIAM WATSON SMITH
Princeton. Smith, Buchanan & Ingersoll. Art, Advisory.

*FRED W. WEIR
City Council. Buildings and Grounds.

WILLIAM P. WITHEROW
Yale. President, Blaw-Knox Company. Music Hall, Tech, Advisory.

*A. L. WOLK
Columbia University. Law School University of Pittsburgh. City Council. Auditing, Library, Advisory.

LAWRENCE C. WOODS, JR.
Princeton. Manager, Woods Agency, Equitable Life Assurance Society of U. S. Museum.

man of the
Authority.

d, Mellon
Museum,

, Gulf Oil

Pittsburgh.
Art, Admin-

Committee,
pany. Art,

National
Arts, Tech,

States Steel

m and Steel
t, Pension,

Pittsburgh.
ence.

Corporation.

nt, Schaefer

gersoll. Art,

any. Music

University of
g, Library,

y, Equitable
seum.